UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,080	12/01/2003	Dragan Tomic	MSFT-2793/304866.01	4783

41505   7590   04/16/2008
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ART UNIT	PAPER NUMBER
2161	

MAIL DATE	DELIVERY MODE
04/16/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8,10-12,20-25 and 27-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8,10-12,20-25 and 27-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Response to Amendment

This office action is in response to the amendment filed on Jan. 15, 2008.

Claims 8, 10-12, 20-25 and 27-30 are pending for examination. Claims 8, 10-12,

20, 22, 25 and 27-30 have been amended.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 8, 10-12, 20-25 and 27-30, are rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

application was filed, had possession of the claimed invention.

As to claims 8, 20 and 25, the claimed "subsequently preventing the container

from being removed from said database system unless said typing said database

column is reversed" are new matters, because the instant specification fails to provide

the support for it. (i.e., the instant specification discloses no algorithm to perform the

claimed preventing operation, nor does it specify any decision to reverse the typing of

the claimed database column, thus, they should be removed.)

As to claims 10-12, 21-24 and 27-30, these claims have the same defects as

their base claims, hence, are rejected for the same reason.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 8, 10-12, 20-25 and 27-30, are rejected under 35 U.S.C. 103(a) as being

unpatentable over Murthy et al. (U.S. Publication No. 2003/0140308, or U.S. Patent No.

7,096,224, hereinafter referred as Murthy) in view of Sarkar (U.S. Patent No.

6,418,448).

Claim 8:

Murthy discloses a database system for storing data comprising Extensible

Markup Language (XML) instances, said database system [e.g., Abstract], comprising:

a processor that executes computer program code stored on a computer

readable storage medium to generate a container for XML schema namespaces [e.g.,

the database server system processing of Fig. 1 and associated texts];

associating at least two XML schema namespace Universal Resource Identifiers

(URIs) with said container. Wherein at least one of said namespace URLs identifying a

location of a schema document that defines a format for any of a plurality of XML

instances conforming to said schema document [e.g., col. 4, lines 52- col. 5, lines 53,

col. 9, line 37- col. 10, line 39, the use of table "Default mapping of XML simple types to

SQL" at col.(s), 11-14];

validating an XML instance according to a schema document identified by at

least one of said namespace URLs [e.g., col. 4, lines 13-14, & col. 5, lines 49-52 and

the Example at col. 17];

storing a validated XML instance in a database column [e.g., col. 17, lines 59 –

col. 18, lines 34];

typing said database column with said container wherein the typing comprises

validating any XML instances existing in said database column prior to the typing [e.g.,

[e.g., col. 9, lines 39-45] and subsequently preventing the container from being

removed from said database system unless the typing is reversed, [e.g., col. 8, lines 65-

col. 9, lines 20].

Claim 10:

Except the limitations recited in claim 8, Murthy further discloses an import function which modifies said container so that it refers to at least one schema component in an XML schema namespace other than XML schema namespaces identified by said at least two XML schema namespace URIs [e.g., col. 8, lines 33-47].

Claim 11:

Except the limitations recited in claim 8, Murthy further discloses an include function which allows assembly of schema component for a single namespace from several schema documents [e.g. col. 4, lines 10 – 37, XML Schema Registration at col. 4, line 40 – col. 5, line 52, col. 8, lines 33-47].

Claim 12:

Except the limitations recited in claim 8, Murthy further discloses an alter function which adds schema components to XML schema namespaces within said container [e.g., col. 4, lines 20-21, col. 9, lines 13-19].

As to claims 20-24, these claims recite the same features as claims 8, 10-12 with different wording, hence, are rejected for the same reason.

As to claims 25, 27-30, the claimed instructions and software means are deemed

to be inherent by the functional steps as recited in claims 8-12 and 20-24, hence are

rejected for the same reason.

Response to Arguments

Applicant's arguments based on newly amended claims filed on Jan 15, 2008

have been fully considered but they are moot in view of the new ground(s) of rejection.

The examiner disagrees with applicant's arguments that "Murthy does not

disclose typing database columns with a container for XML schema namespaces, as

required by each of the independent claims."

In reply to above arguments, the examiner directs applicant's attention to the

following excerpts disclosed by Murthy:

"Tables and columns that are part of the "appropriate database representation" of
an XML schema are referred to herein as "schema-based" tables and columns.
According to one embodiment, Schema-based XMLType tables and columns can
be created by referencing the schema URL (of a registered schema) and the
name of the root element. A subset of the XPointer notation (shown below) can
also be used in providing a single URL containing both the schema location and
the element name."

CREATE TABLE po_tab OF xmltype
XMLSCHEMA "http://www.oracle.com/PO.xsd" ELEMENT
"PurchaseOrder"
An equivalent definition is
        CREATE TABLE po_tab of xmltype
                element "http://www.oracle.com/PO.xsd#PurchaseOrder";

By default, schema-based XMLType is stored in an underlying (hidden) object type column. The SQL object types can be created (optionally) during the schema registration process. The mapping from XML to SQL object types and attributes is itself stored within the XML schema document as extra annotations i.e. new attributes defined by XDB.
Schema-based XMLType can also be stored in a single underlying LOB column.

```
CREATE TABLE po_tab OF xmltype
STORE AS CLOB ELEMENT
"http://www.oracle.com/PO.xsd#PurchaseOrder";
        Creation of SQL Object Types
```

According to one embodiment, when an XML schema is registered, database server 104 creates the appropriate SQL object types that enable a structured storage of XML documents conforming to this schema. All SQL object types are created in the current user's schema (by default). For example, when PO.xsd is registered, the following SQL types are created.

```
create type Item_t as object
( part varchar2(1000),
price number );
create type Item_varray_t as varray(1000) of OBJ_T1;
create type PurchaseOrder_t as object
( purchasedate date, ponum number, company
varchar2(100), item Item_varray_t );
```

The names of the object types and attributes above may actually be system-generated. If the schema already contains the SQLName attribute filled in, this name is used as the object attribute's name. Else, the name is derived from the XML name--unless it cannot be used because of length, or conflict reasons. If the SQLSchema attribute is filled in, Oracle will attempt to create the type in the specified schema. The current user must have any necessary privileges to perform this operation."

As set forth above from col. 9, lines 37 - col. 10, lines 39, Murthy clearly

disclosed the use of the command "CREATE TABLE" to create an "XMLTYPE" table

for holding (or containing) the "XMLSCHEMA" typed objects associated with a

specific URL element, such that the created "XMLSCHEMA" typed objects is stored

into the various columns of the "XMLSCHEMA" typed tables. Wherein, the

"XMLTYPE" tables are deemed to be "containers" for XML schema namespaces" as claimed by applicant, since it contained the typed "http:..." objects. And the created ""XMLSCHEMA" objects are deemed to be further typed by the "create type" SQL commands.

Thus, based on the discussion above, Murthy clearly disclosed the claimed features. As such, the examiner concludes that the prior art read on the claimed features.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSAN Y. CHEN whose telephone number is (571)272-4016. The examiner can normally be reached on Monday - Friday from 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mofiz Apu can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Partial Sig. Examiner
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April 5, 2008

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